

# **MINOR SOURCE OPERATING PERMIT OFFICE OF AIR MANAGEMENT**

**The Selmer Company, Inc.  
1119 North Main Street  
Elkhart, Indiana 46514**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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| Operation Permit No.: MSOP 039-7765-00049                               |                |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary musical instrument manufacturing source.

Authorized Individual: Clifton J. Cartwright  
Source Address: 1119 North Main Street, Elkhart, Indiana 46514  
Mailing Address: 1119 North Main Street, Elkhart, Indiana 46514  
Phone Number: (219) 264-1700  
SIC Code: 3931  
County Location: Elkhart  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Woodworking machines with a maximum capacity of 30 wooden instruments per hour, using dust collection systems, identified as DC1 and DC2, as controls, where DC1 is a cyclone and DC2 consists of a baghouse and a cyclone in series.
- (b) Buffing machines for cotton buffing of musical instruments, using dust collection systems, identified as DC3 and DC4, as controls, where DC3 is a cyclone and baghouse operating in parallel and DC4 is a cyclone and baghouse operating in series.
- (c) Two (2) natural gas fired steam generating boilers constructed in 1960 and 1965, capacity: 3.35 million British thermal units per hour, each.
- (d) Hand soldering musical instrument keys, exhausting through six (6) exhaust systems and exiting at stacks SV05, SV06, SV07, SV08, SV09, SV16, and SV18.
- (e) Grinding and machining operations controlled with ten (10) small particulate collectors, exiting at stacks SV13, SV01, V15, V14, V21, V22, V23, V17, V19, and V2.
- (f) One (1) aqueous ultrasonic system using water and 0.68 gallons per day of a mild alkaline cleaner, exhausting through stack SV12.
- (g) One (1) cleaning room consisting of five (5) small manual dip alkaline cleaner tanks and two (2) water rinse tanks, exhausting through stacks SV10 and SV11.
- (h) Four (4) covered tanks containing mineral spirits that are used for in process parts cleaning, capacity: 35 gallons, each.

- (i) Sealer spray application on wood clarinets, using high volume, low pressure (HVLP) spray equipment for coating and application and hand wiping for cleaning, using a baffle plate for overspray control and exhausting to stack SV04, capacity: 0.2 wood clarinets per hour.
- (j) Adhesive application to bond cork to the plastic and wood clarinet body parts to make the tenon joint, applied by brush, exhausting to stack SV24 and SV03, capacity: 45 clarinets per hour.
- (k) One (1) enclosed vertical machining center where the machining interface is flooded by a coolant fed by a closed loop sump/pump and filtration system, using water and a five percent (5%) mix ratio of metal working fluid.

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780. WITH CONDITIONS LISTED BELOW.

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.
  - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C SOURCE OPERATION CONDITIONS

|               |
|---------------|
| Entire Source |
|---------------|

### C.1 Part 70 and PSD Minor Source Status [326 IAC 2-7] [326 IAC 2-2] [40 CFR 52.21]

- (a) Any change or modification which may increase potential to emit to 100 tons per year from this source, shall cause this source to be considered a major source under Part 70, 326 IAC 2-7. Pursuant to 326 IAC 2-7-4(a)(1)(A)(ii) and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within twelve (12) months of the date on which the source first meets an applicability criterion of 326 IAC 2-7-2.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.
- (c) Any change or modification which may increase potential to emit of any individual hazardous air pollutant (HAP) to 10 tons per year or any combination of HAPs to 25 tons per year from this source, shall cause this source to be considered a major source under Part 70, 326 IAC 2-7. Pursuant to 326 IAC 2-7-4(a)(1)(A)(ii) and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within twelve (12) months of the date on which the source first meets an applicability criterion of 326 IAC 2-7-2.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

#### C.4 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-7-6(6)]

#### C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

#### C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.

- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.7 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

**C.8 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.9 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

**Testing Requirements**

**C.10 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]**

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

### **Compliance Monitoring Requirements**

#### **C.11 Compliance Monitoring [326 IAC 2-1.1-11]**

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

#### **C.12 Monitoring Methods [326 IAC 3]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

#### **C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]**

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

**C.14 Actions Related to Noncompliance Demonstrated by a Stack Test**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

**C.15 Malfunctions Report [326 IAC 1-6-2]**

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.17 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual. Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) A malfunction as described in 326 IAC 1-6-2; or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.19 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description - Woodworking and Buffing

- (a) Woodworking machines with a maximum capacity of 30 wooden instruments per hour, using dust collection systems, identified as DC1 and DC2, as controls, where DC1 is a cyclone and DC2 consists of a baghouse and a cyclone in series.
- (b) Buffing machines for cotton buffing of musical instruments, using dust collection systems, identified as DC3 and DC4, as controls, where DC3 is a cyclone and baghouse operating in parallel and DC4 is a cyclone and baghouse operating in series.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the allowable PM emission rate from the woodworking operations and buffing facilities shall not exceed 0.551 pounds per hour, each, when operating at process weight rates of less than 100 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

### Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.1.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.1.3 Particulate Matter (PM)

The dust collection systems (DC1, DC2, DC3 and DC4) for PM control shall be in operation at all times when the woodworking or buffing are in operation. The dust collection systems, DC1 and DC2, for the woodworking operations shall maintain a minimum overall control efficiency of 95.6% at all times when the woodworking is in operation and the dust collection systems, DC3 and DC4, for the buffing operations shall maintain a minimum overall control efficiency of 83.1% at all times when the buffing is in operation.

## **SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

### **Emissions Unit Description - Two (2) boilers**

- (c) Two (2) natural gas fired steam generating boilers constructed in 1960 and 1965, capacity: 3.35 million British thermal units per hour, each.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### **Emission Limitations and Standards**

#### **D.2.1 Particulate Matter (PM) [326 IAC 6-2-3]**

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(b)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

### **Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

#### **D.2.2 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### SECTION D.3 Emissions Unit OPERATION CONDITIONS

#### **Emissions Unit Description - Hand Soldering & Grinding and Machining**

- (d) Hand soldering musical instrument keys, exhausting through six (6) exhaust systems and exiting at stacks SV05, SV06, SV07, SV08, SV09, SV16, and SV18.
- (e) Grinding and machining operations controlled with ten (10) small particulate collectors, exiting at stacks SV13, SV01, V15, V14, V21, V22, V23, V17, V19, and V2.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

#### **Emission Limitations and Standards**

##### **D.3.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]**

Pursuant to 326 IAC 6-3-2(c) (Process Operations), the allowable PM emission rate from the hand soldering and grinding and machining facilities shall not exceed 0.551 pounds per hour, each, when operating at process weight rates of less than 100 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### **Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

##### **D.3.2 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

##### **D.3.3 Particulate Matter (PM)**

The ten (10) small particulate collectors, exiting at stacks SV13, SV01, V15, V14, V21, V22, V23, V17, V19, and V2, for PM control shall be in operation at all times when the corresponding grinding and machining is in operation.

## SECTION D.4 Emissions Unit OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-7-5(15)] - Cleaning, Coating, Adhesives and Machining

- (f) One (1) aqueous ultrasonic system using water and 0.68 gallons per day of a mild alkaline cleaner, exhausting through stack SV12.
- (g) One (1) cleaning room consisting of five (5) small manual dip alkaline cleaner tanks and two (2) water rinse tanks, exhausting through stacks SV10 and SV11.
- (h) Four (4) covered tanks containing mineral spirits that are used for in process parts cleaning, capacity: 35 gallons, each.
- (i) Sealer spray application on wood clarinets, using high volume, low pressure (HVLP) spray equipment for coating and application and hand wiping for cleaning, using a baffle plate for overspray control and exhausting to stack SV04, capacity: 0.2 wood clarinets per hour.
- (j) Adhesive application to bond cork to the plastic and wood clarinet body parts to make the tenon joint, applied by brush, exhausting to stack SV24 and SV03, capacity: 45 clarinets per hour.
- (k) One (1) enclosed vertical machining center where the machining interface is flooded by a coolant fed by a closed loop sump/pump and filtration system, using water and a five percent (5%) mix ratio of metal working fluid.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards

#### D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The potential emissions of VOC from each of these facilities are less than 25 tons per year. Any change or modification which may increase potential emissions to 25 tons per year or more shall obtain approval from OAM before such change may occur.

#### D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-2]

The actual emissions of VOC from the sealer spray application and the adhesive application are each less than 15 pounds per day, each. Any change or modification which may increase actual emissions to 15 pounds per day or more shall obtain approval from OAM before such change may occur.

#### D.4.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the one (1) enclosed vertical machining center, sealer spray application and adhesive application shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

## **Compliance Determination Requirements**

### **D.4.4 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### **D.4.5 Volatile Organic Compounds (VOC)**

Compliance with the VOC emission requirements contained in Conditions D.4.1 and D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

### **D.4.6 VOC Emissions**

Compliance with Conditions D.4.1 and D.4.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

## **Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.4.7 Particulate Matter (PM)**

The baffle plate for the sealer spray operation shall be in operation at all times the sealer spray operation is in operation. The one (1) enclosed vertical machining center machining interface shall continuously be flooded by a coolant when in operation.

### **D.4.8 Monitoring**

- (a) Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer's recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the sealer spray application stack SV04 while the sealer spray application is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**D.4.9 Record Keeping Requirements**

- 
- (a) To document compliance with Conditions D.4.1 and D.4.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.
    - (1) The amount and VOC content of each coating and adhesive material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
    - (2) A log of the dates of use;
    - (3) The cleanup solvent usage for each month;
    - (4) The total VOC usage for each month; and
    - (5) The weight of VOCs emitted for each compliance period.
  - (b) To document compliance with Condition D.4.9, the Permittee shall maintain a log of weekly overspray observations, weekly observations of the water level in the pans, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
  - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES ?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ The Selmer Company, Inc. \_\_\_\_\_ PHONE NO. : \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_ Elkhart / Elkhart \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ MSOP 039-7765 \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ 039-00049 \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_\_ / \_\_\_\_\_ / 19\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_\_ / \_\_\_\_\_ / 19\_\_\_\_ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\* **Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

---

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**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

|                      |
|----------------------|
| <b>Company Name:</b> |
| <b>Address:</b>      |
| <b>City:</b>         |
| <b>Phone #:</b>      |
| <b>MSOP #:</b>       |

I hereby certify that The Selmer Company, Inc. is

☐ still in operation.

☐ no longer in operation.

I hereby certify that The Selmer Company, Inc. is

☐ in compliance with the requirements of  
MSOP **039-7765-00049**.

☐ not in compliance with the requirements of  
MSOP **039-7765-00049**.

|                                       |
|---------------------------------------|
| <b>Authorized Individual (typed):</b> |
| <b>Title:</b>                         |
| <b>Signature:</b>                     |
| <b>Date:</b>                          |

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

|                       |
|-----------------------|
| <b>Noncompliance:</b> |
|                       |
|                       |
|                       |
|                       |
|                       |

## **Indiana Department of Environmental Management Office of Air Management**

### Technical Support Document (TSD) for a Minor Source Operating Permit

#### **Source Background and Description**

|                              |   |
|------------------------------|---|
| <b>Source Name:</b>          | <b>The Selmer Company, Inc.</b>                       |
| <b>Source Location:</b>      | <b>1119 North Main Street, Elkhart, Indiana 46514</b> |
| <b>County:</b>               | <b>Elkhart</b>  |
| <b>SIC Code:</b>             | <b>3931</b>   |
| <b>Operation Permit No.:</b> | <b>039-7765-00049</b>                                 |
| <b>Permit Reviewer:</b>      | <b>CarrieAnn Ortolani</b>                             |

The Office of Air Management (OAM) has reviewed an application from the Selmer Company, Inc., Main Street Plant relating to the operation of a musical instrument manufacturing source. The Selmer Company, Inc., Main Street Plant manufactures wooden instruments with some metal parts. The Selmer Company, Inc., Main Street Plant replaced the open-top vapor degreaser using trichloroethylene with a new aqueous ultrasonic system. A trichloroethylene tank has been removed from the source. As a result of these changes, the source is not a major Title V source. The emission units were previously registered based upon allowable emissions. The source now requires a MSOP based upon the potential to emit.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Woodworking machines with a maximum capacity of 30 wooden instruments per hour, using dust collection systems, identified as DC1 and DC2, as controls, where DC1 is a cyclone and DC2 consists of a baghouse and a cyclone in series.
- (b) Buffing machines for cotton buffing of musical instruments, using dust collection systems, identified as DC3 and DC4, as controls, where DC3 is a cyclone and baghouse operating in parallel and DC4 is a cyclone and baghouse operating in series.
- (c) Two (2) natural gas fired steam generating boilers constructed in 1960 and 1965, capacity: 3.35 million British thermal units per hour, each.
- (d) Hand soldering musical instrument keys, exhausting through six (6) exhaust systems and exiting at stacks SV05, SV06, SV07, SV08, SV09, SV16, and SV18.
- (e) Grinding and machining operations controlled with ten (10) small particulate collectors, exiting at stacks SV13, SV01, V15, V14, V21, V22, V23, V17, V19, and V2.
- (f) One (1) aqueous ultrasonic system using water and 0.68 gallons per day of a mild alkaline cleaner, exhausting through stack SV12.

- (g) One (1) cleaning room consisting of five (5) small manual dip alkaline cleaner tanks and two (2) water rinse tanks, exhausting through stacks SV10 and SV11.
- (h) Four (4) covered tanks containing mineral spirits that are used for in process parts cleaning, capacity: 35 gallons, each.
- (i) Sealer spray application on wood clarinets, using high volume, low pressure (HVLP) spray equipment for coating and application and hand wiping for cleaning, using a baffle plate for overspray control and exhausting to stack SV04, capacity: 0.2 wood clarinets per hour.
- (j) Adhesive application to bond cork to the plastic and wood clarinet body parts to make the tenon joint, applied by brush, exhausting to stack SV24 and SV03, capacity: 45 clarinets per hour.
- (k) One (1) enclosed vertical machining center where the machining interface is flooded by a coolant fed by a closed loop sump/pump and filtration system, using water and a five percent (5%) mix ratio of metal working fluid.

#### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

#### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration (Old Permit No. 20-01-80-0376) issued on January 9, 1980; and
- (b) Exemption issued January 9, 1980.

All conditions from previous approvals were incorporated into this permit.

#### **Source Definition**

This musical instrument manufacturing company consists of two (2) plants:

- (a) The Selmer Company, Inc., Main Street Plant is located at 1119 North Main Street, Elkhart, Indiana; and
- (b) The Selmer/Vincent Bach Division Plant is located at 500 Industrial Parkway, Elkhart, Indiana.

The two (2) plants are owned by one (1) company and have the same SIC codes. However, the two (2) plants are not located on contiguous properties (they are five (5) miles apart), and the Main Street Plant manufactures wooden instruments while the Selmer/Vincent Bach Plant manufactures brass instruments. The two (2) plants do not share materials and a negligible amount of product from one plant enters the other plant for further manufacturing. Therefore, the two (2) plants are not considered a single source.

### Stack Summary

| Stack ID | Operation                      | Height<br>(feet) | Diameter<br>(feet) | Flow Rate<br>(acfm) | Temperature<br>(EF) |
|----------|--------------------------------|------------------|--------------------|---------------------|---------------------|
| SV01     | Flute Lip Plate Grinding       | 15.0             | 1.2                | 1,000               | 68                  |
| SV03     | Cork Gluing                    | 33.2             | 1.5                | 3,000               | 68                  |
| SV04     | Topcoat Application            | 32.8             | 1.2                | 1,500               | 68                  |
| SV05     | Soldering Keys                 | 32.5             | 1.0                | 2,100               | 85                  |
| SV06     | Soldering Keys                 | 32.9             | 1.1                | 1,129               | 85                  |
| SV07     | Soldering Keys                 | 32.7             | 1.3                | 700                 | 85                  |
| SV08     | Soldering Keys                 | 32.7             | 0.8                | 2,100               | 85                  |
| SV09     | Soldering Keys                 | 32.6             | 1.2                | 1,100               | 85                  |
| SV10     | Parts Cleaning                 | 32.7             | 1.2                | 1,000               | 68                  |
| SV11     | Parts Cleaning & Rinsing       | 38.8             | 1.5                | 1,600               | 68                  |
| SV12     | Aqueous Cleaning               | 18.0             | 0.8                | 1,500               | 68                  |
| SV13     | Plastic Clarinet Body Drilling | 11.0             | 1.3                | 1,000               | 68                  |
| SV16     | Flute Body Soldering           | 32.2             | 1.0                | 1,300               | 85                  |
| SV18     | Section Key Soldering          | 32.8             | 0.8                | 500                 | 85                  |
| SV20     | Boilers                        | 39.0             | 1.4                | NA                  | NA                  |
| SV24     | Tenon Cork Gluing              | 31.9             | 0.8                | 2,000               | 68                  |
| SV25     | Small Parts Mill & Drill       | 32.4             | 0.8                | 650                 | 68                  |
| SV26     | Key Parts Grinding             | 33.8             | 1.0                | 3,900               | 68                  |
| SV27     | Wood Body Parts Sanding        | 31.8             | 0.7                | 1,300               | 68                  |
| SV28     | Tenon Cork Gluing              | 34.8             | 0.8                | 1,500               | 68                  |

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A permit application for the purposes of this review was received on December 16, 1996. Additional information was received on February 5, 1998 and March 30, 1998, June 8, 1998, June 26, 1998, November 30, 1998, and June 10, 1999.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 1 through 9 of 9).

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

| Pollutant        | Potential To Emit<br>(tons/year) |
|------------------|----------------------------------|
| PM               | 70.9                             |
| PM <sub>10</sub> | 71.0                             |
| SO <sub>2</sub>  | 4.09                             |
| VOC              | 3.83                             |
| CO               | 2.47                             |
| NO <sub>x</sub>  | 5.51                             |

| HAPS            | Potential To Emit<br>(tons/year) |
|-----------------|----------------------------------|
| Benzene         | 6.16E-05                         |
| Dichlorobenzene | 3.52E-05                         |
| Formaldehyde    | 0.002                            |
| Hexane          | 0.112                            |
| Toluene         | 0.264                            |
| Lead            | 1.467E-05                        |
| Cadmium         | 3.228E-05                        |
| Chromium        | 4.108E-05                        |
| Manganese       | 1.115E-05                        |
| Nickel          | 6.163E-05                        |
| Phosphorus      | 3.37                             |
| Phosphorine     | 3.37                             |
| Xylene          | 0.004                            |
| Ethylbenzene    | 0.001                            |
| Glycol Ethers   | 0.105                            |
| Methanol        | 0.0003                           |
| MEK             | 1.77                             |
| TOTAL           | 5.63                             |

- (a) The potentials to emit (as defined in the Indiana Rule) of PM and PM<sub>10</sub> are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Actual Emissions**

The actual emissions from the 1996 OAM emissions data do not represent the present actual emissions due to the removal of the vapor degreasers in 1998 and 1999.

**Limited Potential to Emit**

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

|  | <b>Limited Potential to Emit</b><br>(tons/year) |                  |                 |            |      |                 |            |
|--|---|------------------|-----------------|------------|------|-----------------|------------|
| Process/facility                                   | PM  | PM <sub>10</sub> | SO <sub>2</sub> | VOC        | CO   | NO <sub>x</sub> | HAPS       |
| Woodworking machines                               | 2.41<br>(2.41)                                  | 2.41             | 0.0             | 0.0        | 0.0  | 0.0             | 0.0        |
| Buffing machines                                   | 1.43<br>(2.41)                                  | 1.43             | 0.0             | 0.0        | 0.0  | 0.0             | 0.0        |
| Two (2) natural gas fired steam generating boilers | 0.056   | 0.223            | 0.018           | 0.161      | 2.47 | 2.93            | 0.055      |
| Hand soldering                                     | negligible<br>(2.41)                            | negligible       | 0.00            | 0.00       | 0.00 | 0.00            | negligible |
| Grinding and Machining operations                  | 1.29<br>(2.41)                                  | 1.29             | 0.00            | 0.00       | 0.00 | 0.00            | 0.00       |
| One (1) aqueous ultrasonic system                  | 0.00  | 0.00             | 0.00            | 1.05       | 0.00 | 0.00            | 0.105      |
| One (1) cleaning room                              | 0.00  | 0.00             | 4.07            | 0.00       | 0.00 | 2.58            | 3.37       |
| Four (4) covered tanks                             | 0.00  | 0.00             | 0.00            | negligible | 0.00 | 0.00            | 0.00       |
| Sealer spray application                           | 0.005   | 0.005            | 0.00            | 1.62       | 0.00 | 0.00            | 1.60       |
| Adhesive Application                               | 0.00  | 0.00             | 0.00            | 1.00       | 0.00 | 0.00            | 0.497      |
| One (1) enclosed vertical machining center         | negligible                                      | negligible       | 0.00            | negligible | 0.00 | 0.00            | 0.00       |
| Total Emissions                                    | 5.19<br>(9.70)                                  | 5.36             | 4.09            | 3.83       | 2.47 | 5.51            | 5.63       |

The values in the table represent the potential emissions after controls. The values in parenthesis represent the allowable emissions based 326 IAC 6-3-2 for the process operations.

### County Attainment Status

The source is located in Elkhart County.

| Pollutant        | Status     |
|------------------|------------|
| PM <sub>10</sub> | attainment |
| SO <sub>2</sub>  | attainment |
| NO <sub>2</sub>  | attainment |
| Ozone            | attainment |
| CO               | attainment |
| Lead             | attainment |

Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant        | Emissions<br>(ton/yr) |
|------------------|-----------------------|
| PM               | 5.19                  |
| PM <sub>10</sub> | 5.36                  |
| SO <sub>2</sub>  | 4.09                  |
| VOC              | 3.83                  |
| CO               | 2.47                  |
| NO <sub>x</sub>  | 5.51                  |
| Single HAP       | 3.37                  |
| Combination HAPS | 5.63                  |

- (a) This source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) These emissions are based on the potential to emit after controls as determined by using information provided in the application.

## **Part 70 Permit Determination**

### **326 IAC 2-7 (Part 70 Permit Program)**

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPS is less than 25 tons/year.

## **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20; 40 CFR Parts 61 and 63) applicable to this source.
- (c) Since the two (2) natural gas-fired steam generating boilers were constructed in 1965, which is prior to the applicability date of August 17, 1971 for 40 CFR Part 60.40, Subpart D, Standards of Performance for Fossil Fuel-Fired Steam Generators, the two (2) boilers are not subject to the requirements of Subpart D.
- (d) Since the four (4) storage tanks have capacities of 35 gallons, which is less than 40 cubic meters, the requirements of 40 CFR 60.110a, 60.110b and 60.110c, Subparts K, Ka and Kb, do not apply.
- (e) The requirements of 40 CFR Part 63, Subpart T, National Emission Standards for Halogenated Solvent Cleaning, are not applicable because this source does not use any halogenated solvents.

## **State Rule Applicability - Entire Source**

### **326 IAC 2-4.1-1 (New Source Toxics Control)**

This source was constructed prior to July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) do not apply.

### **326 IAC 2-2 (PSD)**

This source does not emit more than 250 tons per year of any of the criteria pollutants and this source is not one of the 28 listed source categories under 326 IAC 2-2. Therefore, this source is not a major PSD source, and the requirements of 326 IAC 2-2 do not apply.

### **326 IAC 2-6 (Emission Reporting)**

This source is not subject to 326 IAC 2-6 (Emission Reporting), because the source does not have the potential to emit more than ten (10) tons per year of VOC in Elkhart County and the source does not have the potential to emit one hundred (100) tons per year or more of PM<sub>10</sub> or SO<sub>2</sub> in Elkhart County.

### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Individual Facilities

#### 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating)

The allowable PM emissions from the two (2) natural gas-fired steam generating boilers, constructed in 1960 and 1965, are based upon the following equation:

$$Pt = (C \times a \times h) / (76.5 \times Q^{0.75} \times N^{0.25})$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic feet per minute meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 million British thermal units per hour heat input.

h = Stack height in feet. If a number of stacks of different heights exist, the average stack height will be computed using a weighted average of stack heights.

$$Pt = (50 \mu\text{g}/\text{m}^3 \times 0.67 \times 15 \text{ ft}) / (76.5 \times 6.7^{0.75} \times 2^{0.25}) = 1.33 \text{ lbs PM} / \text{MMBtu}$$

This number is greater than the allowable emissions stated in 326 IAC 6-2-3(d), therefore, the allowable emissions for each of the boilers constructed prior to June 8, 1972 shall be limited to 0.8 pounds of PM per million British thermal units.

The potential PM emissions from the boilers limited to 0.8 lb PM per million British thermal units are:

$$(3.35 \text{ MMBtu/hr}) \times (8.76 \text{ hr} \times \text{MMcf}) / (\text{MMBtu} \times \text{yr}) = 29.3 \text{ MMcf/yr}$$

$$29.3 \text{ MMcf/yr} \times 1.9 \text{ lbs/MMcf} = 55.7 \text{ lbs/yr}$$

$$55.7 \text{ lbs/yr} / (3.35 \text{ MMBtu/hr} \times 8760 \text{ hrs/yr}) = 0.0019 \text{ lbs PM / MMBtu}$$

Thus, the boilers will comply with the emission limitations of 326 IAC 6-2-3.

#### 326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter (PM) emissions from the woodworking operations shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. The process weight rate at the woodworking operations is 13 pounds of wood per hour. Since the potential to emit PM before controls is 12.6 pounds per hour, compliance will be demonstrated by operating the cyclones and baghouse of the dust collection systems, DC1 and DC2, at a minimum overall control efficiency of 95.6% at all times when the woodworking is in operation.
- (b) The particulate matter (PM) emissions from the buffing operations shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. The process weight rate at the buffing operations is 38 pounds of wood per hour. Since the potential to emit PM before controls is 3.27 pounds per hour, compliance will be demonstrated by operating the cyclones and baghouses of the dust collection systems, DC3 and DC4, at a minimum overall control efficiency of 83.1% at all times when the buffing is in operation.
- (c) The particulate matter emissions from the grinding and machining operations shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. Since the potential to emit PM from the grinding and machining operations is 0.296 pounds per hour, It is not necessary to operate the control devices in order to comply with this rule.
- (d) The particulate matter emissions from the hand soldering shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. Since the potential to emit PM from the hand soldering is negligible, the hand soldering will comply with this rule.

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

#### 326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the one (1) enclosed vertical machining center, sealer spray application and adhesive application shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baffle plate for the sealer spray operation shall be in operation at all times the sealer spray operation is in operation, in order for the sealer spray operation to comply with this limit. When in operation, the enclosed vertical machining center machining interface must continuously be flooded by a coolant in order for the one (1) enclosed vertical machining center to comply with this rule.

326 IAC 8-1-6 (New facilities; General reduction requirements)

The requirements of 326 IAC 8-1-6 are not applicable to the one (1) enclosed vertical machining center, one (1) aqueous ultrasonic system, one (1) cleaning room, four (4) covered tanks containing mineral spirits used in process parts cleaning, sealer spray application and adhesive application, because the potential to emit VOC from each of these facilities is less than twenty-five (25) tons per year.

326 IAC 8-2 (Surface Coating Emission Limitations)

The requirements of 326 IAC 8-2 (Surface Coating Emission Limitations) are not applicable to the sealer spray operations and adhesive application, because the facilities were existing as of July 1, 1990 and the potential to emit VOC is less than 15 pounds per day.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

- (a) The requirements of 326 IAC 8-3 are not applicable to the one (1) cleaning room consisting of five (5) small manual dip alkaline cleaner tanks and two (2) water rinse tanks, because the materials used are not volatile organic compounds (VOC).
- (b) The requirements of 326 IAC 8-3 are not applicable to the one (1) aqueous ultrasonic system, because the system is not a vapor degreaser or cold cleaner. The system is a series of five (5) tanks.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The requirements of 326 IAC 8-6 (Organic Solvent Emission Limitations) are not applicable to this source because the source has potential VOC emissions less than 100 tons per year in Elkhart County.

**Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPS) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations (pages 4, 7 and 9 of 9) for detailed air toxic calculations.

**Conclusion**

The operation of this musical instrument manufacturing source shall be subject to the conditions of the attached proposed **Minor Source Operating Permit 039-7765-00049**.

**Appendix A: Emission Calculations  
Woodworking Operations**

**Company Name:** The Selmer Company, Inc.  
**Address City IN Zip:** 1119 North Main Street, Elkhart, Indiana 46514  
**Minor Source Operating Permit:** 039-7765  
**Plt ID:** 039-00049  
**Reviewer:** CarrieAnn Ortolani  
**Date:** December 16, 1996

| Pollutant | Actual Instruments Produced (units/yr) | Production Schedule (hrs/yr) | Production Rate (units/hr) | Process weight rate minus product weight (lbs/yr) | Potential Generated (lbs/hr) | Potential Generated (tons/yr) |
|-----------|--|------------------------------|----------------------------|---|------------------------------|-------------------------------|
| TSP       | 6572                                   | 1880                         | 3.50                       | 23701   | 12.6                         | 55.2                          |
| PM10      | 6572                                   | 1880                         | 3.50                       | 23701   | 12.6                         | 55.2                          |

| Pollutant | Allowable Emissions (lbs/hr) | Required Control Efficiency (%) | Emission Rate after Controls (tons/yr) |
|-----------|------------------------------|---------------------------------|--|
| TSP       | 0.551                        | 95.6%                           | 2.41                                   |
| PM10      | N/A                          | N/A                             | 2.41                                   |

**Methodology**

Production rates (instruments/hr) = production rate (instruments/yr) / operating schedule (hrs/yr)

Potential generated (lbs/hr) = process weight rate minus product weight (lbs/yr) / operating schedule (hrs/yr)

Potential generated (tons/yr) = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Required control efficiency (%) = -((allowable emissions (lbs/hr) / potential generated (lbs/hr)) - 1)

Emission rate after controls (tons/yr) = allowable emissions (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Allowable Rate of Emissions**

| Process Rate for woodworking (lbs/hr) | Process Weight Rate (tons/hr) | Allowable Emissions (lbs/hr) |
|---------------------------------------|-------------------------------|------------------------------|
| 13                                    | 0.007                         | 0.140                        |
| 100                                   | 0.050                         | 0.551                        |

minimum allowable:

**Methodology**

Allowable Emissions = 4.10(Process Weight Rate)^0.67

**Appendix A: Emission Calculations**  
**Buffing Operations**

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**Company Name:** The Selmer Company, Inc.  
**Address City IN Zip:** 1119 North Main Street, Elkhart, Indiana 46514  
**Minor Source Operating Permit:** 039-7765  
**Plt ID:** 039-00049  
**Reviewer:** CarrieAnn Otolani  
**Date:** December 16, 1996

| Pollutant | Production Schedule (hrs/yr) | Actual Instruments Produced (units/yr) | Volume of cotton dust and fibers collected (cub. yard/week) | Weight of cotton dust and fibers/ volume (lbs/cubic yard) | Actual Collected (lbs/yr) | Potential Collected (lbs/hr) | Potential Collected (tons/yr) |
|-----------|------------------------------|--|---|---|---------------------------|------------------------------|-------------------------------|
| TSP       | 1880                         | 19055                                  | 0.25  | 258   | 3225                      | 1.72                         | 7.51                          |
| PM10      | 1880                         | 19055                                  | 0.25  | 258   | 3225                      | 1.72                         | 7.51                          |

**Minimum Control Efficiency Scenario**

| Pollutant | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/yr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 1.72                         | 7.51                          | 90.0%                          | 1.91                         | 8.37                          | 0.191                             | 0.837                              |
| PM10      | 1.72                         | 7.51                          | 90.0%                          | 1.91                         | 8.37                          | 0.191                             | 0.837                              |

**Maximum Control Efficiency Scenario**

| Pollutant | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/yr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 1.72                         | 7.51                          | 99.9%                          | 1.72                         | 7.54                          | 0.002                             | 0.008                              |
| PM10      | 1.72                         | 7.51                          | 99.9%                          | 1.72                         | 7.54                          | 0.002                             | 0.008                              |

**Potential Collected Based on Special Waste Certification no. 70189 and Minimum Control Efficiency**

| Pollutant | Volume of cotton dust and fibers collected (cub. yard/yr) | Weight of cotton dust and fibers/ volume (lbs/cubic yard) | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/yr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|---|---|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 100   | 258   | 2.95                         | 12.9                          | 90.0%                          | 3.27                         | 14.3                          | 0.327                             | 1.43                               |
| PM10      | 100   | 258   | 2.95                         | 12.9                          | 90.0%                          | 3.27                         | 14.3                          | 0.327                             | 1.43                               |

**Potential Collected Based on Special Waste Certification no. 70189 and Maximum Control Efficiency**

| Pollutant | Volume of cotton dust and fibers collected (cub. yard/yr) | Weight of cotton dust and fibers/ volume (lbs/cubic yard) | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/yr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|---|---|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 100   | 258   | 2.95                         | 12.9                          | 99.9%                          | 2.95                         | 12.9                          | 0.003                             | 0.013                              |
| PM10      | 100   | 258   | 2.95                         | 12.9                          | 99.9%                          | 2.95                         | 12.9                          | 0.003                             | 0.013                              |

**Maximum Emissions, all scenarios**

| Pollutant | Potential Generated (lbs/hr) | Potential Generated (tons/yr) | Allowable Emissions (lbs/hr) | Required Control Efficiency (%) | Emission Rate after Controls (tons/yr) |
|-----------|------------------------------|-------------------------------|------------------------------|---------------------------------|--|
| TSP       | 3.27                         | 14.3                          | 0.551                        | 83.1%                           | 2.41                                   |
| PM10      | 3.27                         | 14.3                          | N/A                          | N/A                             | 2.41                                   |

**Methodology**

Actual collected (lbs/hr) = volume of dust and fibers collected (cub.yd/month) \* (weight fo cotton dust and fibers per volume (lbs/cub. yd) \* 50 weeks of operation/year

Potential collected (lbs/hr) = actual collected (lbs/yr)/operating schedule (hrs/yr)

Potential collected (tons/yr) = Potential collected (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)

Potential generated (lbs/hr) = potential collected (lbs/hr) / control efficiency (%)

Potential generated (tons/yr) = Potential generated (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)

Emissions after controls (lbs/hr) = potential generated (lbs/hr) \* (1-control efficiency (%))

Emissions after controls (tons/yr) = Emissions after controls (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)

Required control efficiency (%) = -(allowable emissions (lbs/hr) / potential generated (lbs/hr)) - 1)

Emission rate after controls (tons/yr) = allowable emissions (lbs/hr) (8760 hr/yr) (ton/2000 lb)

**Potential Collected Based on Special Waste Certification no. 70189**

Potential collected (lbs/hr) = volume of dust and fibers collected (cub.yd/yr) \* (weight fo cotton dust and fibers per volume (lbs/cub. yd) / 8760 hrs/yr

**Allowable Rate of Emissions**

| Process Rate for buffing (lbs/hr) | Process Weight Rate (tons/hr) | Allowable Emissions (lbs/hr) |
|-----------------------------------|-------------------------------|------------------------------|
| 38                                | 0.019                         | 0.288                        |
| 100                               | 0.050                         | 0.551                        |

minimum allowable:

**Methodology**

Allowable Emissions = 4.10(Process Weight Rate)<sup>0.67</sup>

## Appendix A: Emissions Calculations

### Natural Gas Combustion Only

MM BTU/HR <100

### Small Industrial Boiler

Company Name: The Selmer Company, Inc.

Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514

Minor Source Operating Permit: 039-7765

Plt ID: 039-00049

Reviewer: CarrieAnn Ortolani

Date: December 16, 1996

### Two (2) Steam Boilers

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

6.70

58.7

| Emission Factor in lb/MMCF    | Pollutant |       |       |             |       |      |
|-------------------------------|-----------|-------|-------|-------------|-------|------|
|                               | PM*       | PM10* | SO2   | NOx         | VOC   | CO   |
|                               | 1.9       | 7.6   | 0.6   | 100.0       | 5.5   | 84.0 |
|                               |           |       |       | **see below |       |      |
| Potential Emission in tons/yr | 0.056     | 0.223 | 0.018 | 2.93        | 0.161 | 2.47 |

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**  
**HAPs Emissions**

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**Company Name: The Selmer Company, Inc.**  
**Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514**  
**Minor Source Operating Permit: 039-7765**  
**Plt ID: 039-00049**  
**Reviewer: CarrieAnn Ortolani**  
**Date: December 16, 1996**

HAPs - Organics

| Emission Factor in lb/MMcf    | Benzene<br>2.1E-03 | Dichlorobenzene<br>1.2E-03 | Formaldehyde<br>7.5E-02 | Hexane<br>1.8E+00 | Toluene<br>3.4E-03 |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Potential Emission in tons/yr | 6.163E-05          | 3.522E-05                  | 2.201E-03               | 5.282E-02         | 9.978E-05          |

HAPs - Metals

| Emission Factor in lb/MMcf    | Lead<br>5.0E-04 | Cadmium<br>1.1E-03 | Chromium<br>1.4E-03 | Manganese<br>3.8E-04 | Nickel<br>2.1E-03 |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Potential Emission in tons/yr | 1.467E-05       | 3.228E-05          | 4.108E-05           | 1.115E-05            | 6.163E-05         |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations  
Grinding and Machining Operations**

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**Company Name:** The Selmer Company, Inc.  
**Address City IN Zip:** 1119 North Main Street, Elkhart, Indiana 46514  
**Minor Source Operating Permit:** 039-7765  
**Plt ID:** 039-00049  
**Reviewer:** CarrieAnn Ortolani  
**Date:** December 16, 1996

| Pollutant | Production Schedule (hrs/yr) | Actual Instruments Produced (units/yr) | Actual Collected (lbs/yr) | Potential Collected (lbs/hr) | Potential Collected (tons/yr) |
|-----------|------------------------------|--|---------------------------|------------------------------|-------------------------------|
| TSP       | 1880                         | 19055                                  | 500                       | 0.266                        | 1.16                          |
| PM10      | 1880                         | 19055                                  | 500                       | 0.266                        | 1.16                          |

**Minimum Control Efficiency Scenario**

| Pollutant | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/hr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 0.266                        | 1.16                          | 90.0%                          | 0.296                        | 1.29                          | 0.030                             | 0.129                              |
| PM10      | 0.266                        | 1.16                          | 90.0%                          | 0.296                        | 1.29                          | 0.030                             | 0.129                              |

**Maximum Control Efficiency Scenario**

| Pollutant | Potential Collected (lbs/hr) | Potential Collected (tons/yr) | Minimum Control Efficiency (%) | Potential Generated (lbs/hr) | Potential Generated (tons/yr) | Emissions after controls (lbs/hr) | Emissions after controls (tons/hr) |
|-----------|------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-----------------------------------|------------------------------------|
| TSP       | 0.266                        | 1.16                          | 99.0%                          | 0.269                        | 1.18                          | 0.003                             | 0.012                              |
| PM10      | 0.266                        | 1.16                          | 99.0%                          | 0.269                        | 1.18                          | 0.003                             | 0.012                              |

**Maximum Emissions, all scenarios**

| Pollutant | Potential Generated (lbs/hr) | Potential Generated (tons/yr) | Allowable Emissions (lbs/hr) | Required Control Efficiency (%) | Emission Rate after Controls (tons/yr) |
|-----------|------------------------------|-------------------------------|------------------------------|---------------------------------|--|
| TSP       | 0.296                        | 1.29                          | 0.551                        | 0.0%                            | 1.29                                   |
| PM10      | 0.296                        | 1.29                          | N/A                          | N/A                             | 1.29                                   |

**Methodology**

Potential collected (lbs/hr) = actual collected (lbs/yr)/operating schedule (hrs/yr)  
 Potential collected (tons/yr) = Potential collected (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)  
 Potential generated (lbs/hr) = potential collected (lbs/hr) / control efficiency (%)  
 Potential generated (tons/yr) = Potential generated (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)  
 Emissions after controls (lbs/hr) = potential generated (lbs/hr) \* (1-control efficiency (%))  
 Emissions after controls (tons/yr) = Emissions after controls (lbs/hr) \* (8760 hr/yr) \* (ton/2000 lb)

**Allowable Rate of Emissions**

| Process Rate for buffing (lbs/hr) | Process Weight Rate (tons/hr) | Allowable Emissions (lbs/hr) |
|-----------------------------------|-------------------------------|------------------------------|
| 100                               | 0.050                         | 0.551                        |

minimum allowable:

**Methodology**

Allowable Emissions = 4.10(Process Weight Rate)^0.67

**Appendix A: Emissions Calculations  
VOC  
From Aqueous Ultrasonic System**

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**Company Name: The Selmer Company, Inc.  
Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514  
Minor Source Operating Permit: 039-7765  
Plt ID: 039-00049  
Reviewer: CarrieAnn Ortolani  
Date: December 16, 1996**

| Material                    | Density<br>(lbs/gal) | Weight %<br>Volatile (H2O &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/day) | Pounds VOC per<br>gallon of coating | Potential VOC<br>(pounds per day) | Potential VOC<br>(tons per year) |
|-----------------------------|----------------------|--|-------------------|----------------------|---------------------------------------|--------------------------|-------------------------------------|-----------------------------------|----------------------------------|
|                             |                      |  |                   |                      |                                       |                          |                                     |                                   |                                  |
| Oakite Buffbrite NR cleaner | 8.50                 | 100.00%                                  | 0.0%              | 100.0%               | 0.00%                                 | 0.68000                  | 8.50                                | 5.78                              | 1.05                             |

**State Potential Emissions**

**Add worst case coating to all solvents**

**5.78**

**1.05**

**5.78**

**1.05**

**METHODOLOGY**

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/day) \* 365 days/year \* 1 ton /2000 pounds

**Appendix A: Emissions Calculations  
Various Emissions  
From Cleaning Room using alkaline cleaners**

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**Company Name: The Selmer Company, Inc.  
Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514  
Minor Source Operating Permit: 039-7765  
Plt ID: 039-00049  
Reviewer: CarrieAnn Ortolani  
Date: December 16, 1996**

| Material               | Density (lbs/gal) | Weight % Chemicals | Gal of Mat. (gal/day) | Pounds chemicals used per gallon of material | Potential chemicals used (pounds per day) | Potential chemicals used (tons per year) | Potential pollutants emitted                             |
|------------------------|-------------------|--------------------|-----------------------|--|---|--|--|
|                        |                   |                    |                       |  |   |  |  |
| Dart 151VB             | 11.3              | 55.00%             | 0.40000               | 6.22   | 2.49                                      | 0.45                                     | Phosphorus, Phosphorine                                  |
| Dart 151VB             | 11.3              | 55.00%             | 0.30000               | 6.22   | 1.86                                      | 0.34                                     | Phosphorus, Phosphorine                                  |
| Sulfuric Acid          | 15.3              | 99.00%             | 0.54000               | 15.15  | 8.18                                      | 1.49                                     | Sulfur Dioxide   |
| Hydrogen Peroxide      | 9.97              | 52.00%             | 1.28000               | 5.18   | 6.64                                      | 1.21                                     |  |
| Enthane ENSTRIP TL-106 | 9.06              | 100.00%            | 0.17000               | 9.06   | 1.54                                      | 0.28                                     |  |
| CHEM-MILL VB           | 13.1              | 77.00%             | 1.40000               | 10.09  | 14.12                                     | 2.58                                     | Nitrogen Oxides, Sulfur Dioxide, Phosphorus, Phosphorine |

**State Potential Emissions**

**34.8**

**6.36**

**34.8**

**6.36**

**METHODOLOGY**

Pounds of chemicals per Gallon Material = (Density (lbs/gal) \* Weight % chemicals)

Potential chemicals used Pounds per Day = Pounds of chemicals per Gallon of material (lbs/gal) \* Gal of Material (gal/day)

Potential chemicals used Tons per year = Pounds of chemicals per Gallon material (lbs/gal) \* Gal of Material (gal/day) \* 365 days per year \* 1 ton /2000 pounds

Possible pollutants are those that may be emitted due to the chemical components of each material.

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating and Adhesive Operations**

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**Company Name: The Selmer Company, Inc.  
Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514  
Minor Source Operating Permit: 039-7765  
Pit ID: 039-00049  
Reviewer: CarrieAnn Ortolani  
Date: December**

| Material                   | Density<br>(lbs/gal) | Weight %<br>Volatile (H2O &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Water | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/unit) | Maximum<br>(units/hour) | Pounds VOC<br>per gallon of<br>coating less<br>water | Pounds VOC<br>per gallon of<br>coating | Potential VOC<br>(pounds per<br>hour) | Potential VOC<br>(pounds per<br>day) | Potential VOC<br>(tons per year) | Particulate<br>Potential (tons/yr) | lbs VOC/gal<br>solids | Transfer<br>Efficiency |
|----------------------------|----------------------|--|-------------------|----------------------|-------------------|---------------------------------------|---------------------------|-------------------------|--|--|---------------------------------------|--------------------------------------|----------------------------------|------------------------------------|-----------------------|------------------------|
| 10 Sheen Top coat          | 7.90                 | 63.50%                                   | 0.0%              | 63.5%                | 0.0%              | 28.00%                                | 0.00550                   | 0.200                   | 5.02   | 5.02                                   | 0.01                                  | 0.13                                 | 0.02                             | 0.013                              | 17.92                 | 10%                    |
| Catalyst                   | 8.98                 | 42.49%                                   | 0.0%              | 42.5%                | 0.0%              | 47.20%                                | 0.00017                   | 0.200                   | 3.82   | 3.82                                   | 0.0001                                | 0.0032                               | 0.0006                           | 0.0007                             | 8.08                  | 10%                    |
| MEK                        | 6.73                 | 100.00%                                  | 0.0%              | 100.0%               | 0.0%              | 0.00%                                 | 0.00902                   | 6.000                   | 6.73   | 6.73                                   | 0.36                                  | 8.74                                 | 1.60                             | 0.00                               | n/a                   | 100%                   |
| Contact Adhesive           | 6.92                 | 77.00%                                   | 0.0%              | 77.0%                | 0.0%              | n/a                                   | 0.00033                   | 45.000                  | 5.33   | 5.33                                   | 0.08                                  | 1.90                                 | 0.35                             | 0.00                               | n/a                   | 100%                   |
| Rubber and Gasket Adhesive | 7.34                 | 75.00%                                   | 0.0%              | 75.0%                | 0.0%              | n/a                                   | 0.00060                   | 45.000                  | 5.51   | 5.51                                   | 0.15                                  | 3.57                                 | 0.65                             | 0.00                               | n/a                   | 100%                   |

PM Control Efficiency 60.00%

**State Potential Emissions**

**Add worst case coating to all solvents**

**Uncontrolled  
Controlled**

**0.598 14.3 2.62 0.013  
0.598 14.3 2.62 0.005**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating and Adhesive Operations**

Page 8 of 9 TSD App A

**Company Name: The Selmer Company, Inc.  
Address City IN Zip: 1119 North Main Street, Elkhart, Indiana 46514  
Minor Source Operating Permit: 039-7765  
Pit ID: 039-00049  
Reviewer: CarrieAnn Ortolani  
Date: December**

| Material                   | Density<br>(lbs/gal) | Weight %<br>Volatile (H2O &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Water | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/unit) | Maximum<br>(units/hour) | Pounds VOC<br>per gallon of<br>coating less<br>water | Pounds VOC<br>per gallon of<br>coating | Potential VOC<br>(pounds per<br>hour) | Potential VOC<br>(pounds per<br>day) | Potential VOC<br>(tons per year) | Particulate<br>Potential (tons/yr) | lbs VOC/gal<br>solids | Transfer<br>Efficiency |
|----------------------------|----------------------|--|-------------------|----------------------|-------------------|---------------------------------------|---------------------------|-------------------------|--|--|---------------------------------------|--------------------------------------|----------------------------------|------------------------------------|-----------------------|------------------------|
| 10 Sheen Top coat          | 7.90                 | 63.50%                                   | 0.0%              | 63.5%                | 0.0%              | 28.00%                                | 0.00550                   | 0.200                   | 5.02   | 5.02                                   | 0.01                                  | 0.13                                 | 0.02                             | 0.013                              | 17.92                 | 10%                    |
| Catalyst                   | 8.98                 | 42.49%                                   | 0.0%              | 42.5%                | 0.0%              | 47.20%                                | 0.00017                   | 0.200                   | 3.82   | 3.82                                   | 0.0001                                | 0.0032                               | 0.0006                           | 0.0007                             | 8.08                  | 10%                    |
| MEK                        | 6.73                 | 100.00%                                  | 0.0%              | 100.0%               | 0.0%              | 0.00%                                 | 0.00902                   | 6.000                   | 6.73   | 6.73                                   | 0.36                                  | 8.74                                 | 1.60                             | 0.00                               | n/a                   | 100%                   |
| Contact Adhesive           | 6.92                 | 77.00%                                   | 0.0%              | 77.0%                | 0.0%              | n/a                                   | 0.00033                   | 45.000                  | 5.33   | 5.33                                   | 0.08                                  | 1.90                                 | 0.35                             | 0.00                               | n/a                   | 100%                   |
| Rubber and Gasket Adhesive | 7.34                 | 75.00%                                   | 0.0%              | 75.0%                | 0.0%              | n/a                                   | 0.00060                   | 45.000                  | 5.51   | 5.51                                   | 0.15                                  | 3.57                                 | 0.65                             | 0.00                               | n/a                   | 100%                   |

PM Control Efficiency 60.00%

**State Potential Emissions**

**Add worst case coating to all solvents**

**Uncontrolled  
Controlled**

**0.598 14.3 2.62 0.013  
0.598 14.3 2.62 0.005**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations**  
**HAP Emission Calculations from Surface Coating and Adhesive**

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**Company Name:** The Selmer Company, Inc.  
**Address City IN Zip:** 1119 North Main Street, Elkhart, Indiana 46514  
**Minor Source Operating Permit:** 039-7765  
**Plt ID:** 039-00049  
**Reviewer:** CarrieAnn Ortolani  
**Date:** December 16, 1996

| Material                    | Density<br>(lbs/gal) | Gallons of<br>Material<br>(gal/unit) | Maximum<br>(unit/hour) | Weight %<br>Xylene | Weight %<br>Toluene | Weight %<br>Formaldehyde | Weight %<br>Ethylbenzene | Weight %<br>Phosphorus | Weight %<br>Hexane | Weight %<br>Glycol Ethers | Weight %<br>Methanol | Weight %<br>MEK | Xylene<br>Emissions<br>(tons/yr) | Toluene<br>Emissions<br>(tons/yr) | Formaldehyde<br>Emissions<br>(tons/yr) | Ethylbenzene<br>Emissions<br>(tons/yr) | Phosphorus<br>Emissions<br>(tons/yr) | Hexane<br>Emissions<br>(tons/yr) | Glycol Ethers<br>Emissions<br>(tons/yr) | Methanol<br>Emissions<br>(tons/yr) | MEK<br>Emissions<br>(tons/yr) |
|-----------------------------|----------------------|--------------------------------------|------------------------|--------------------|---------------------|--------------------------|--------------------------|------------------------|--------------------|---------------------------|----------------------|-----------------|----------------------------------|-----------------------------------|--|--|--------------------------------------|----------------------------------|---|------------------------------------|-------------------------------|
| 10 Sheen Top coat           | 7.90                 | 0.00550                              | 0.200                  | 10.30%             | 1.20%               | 0.14%                    | 2.20%                    | 0.00%                  | 0.00%              | 0.00%                     | 0.00%                | 0.00%           | 0.004                            | 0.0005                            | 0.00005                                | 0.0008                                 | 0.000                                | 0.000                            | 0.000                                   | 0.000                              | 0.000                         |
| Catalyst                    | 8.98                 | 0.00017                              | 0.200                  | 0.00%              | 0.00%               | 0.00%                    | 0.00%                    | 5.00%                  | 5.00%              | 0.00%                     | 19.00%               | 19.00%          | 0.000                            | 0.000                             | 0.000                                  | 0.000                                  | 0.00007                              | 0.00007                          | 0.000                                   | 0.0003                             | 0.0003                        |
| MEK                         | 6.73                 | 0.00902                              | 6.000                  | 0.00%              | 0.00%               | 0.00%                    | 0.00%                    | 0.00%                  | 0.00%              | 0.00%                     | 100.00%              | 0.000           | 0.000                            | 0.000                             | 0.000                                  | 0.000                                  | 0.000                                | 0.000                            | 0.000                                   | 0.000                              | 1.595                         |
| Contact Adhesive            | 6.92                 | 0.00033                              | 45.000                 | 0.00%              | 20.00%              | 0.00%                    | 0.00%                    | 0.00%                  | 13.00%             | 0.00%                     | 0.00%                | 0.00%           | 0.000                            | 0.090                             | 0.000                                  | 0.000                                  | 0.000                                | 0.059                            | 0.000                                   | 0.000                              | 0.000                         |
| Rubber and Gasket Adhesive  | 7.34                 | 0.00060                              | 45.000                 | 0.00%              | 20.00%              | 0.00%                    | 0.00%                    | 0.00%                  | 0.00%              | 0.00%                     | 0.00%                | 20.00%          | 0.000                            | 0.174                             | 0.000                                  | 0.000                                  | 0.000                                | 0.000                            | 0.000                                   | 0.000                              | 0.174                         |
| Oakite Buffbrite NR cleaner | 8.50                 | 0.68000                              | 0.04                   | 0.00%              | 0.00%               | 0.00%                    | 0.00%                    | 0.00%                  | 0.00%              | 10.00%                    | 0.00%                | 0.00%           | 0.000                            | 0.000                             | 0.000                                  | 0.000                                  | 0.000                                | 0.000                            | 0.105                                   | 0.000                              | 0.000                         |

Total State Potential Emissions 0.004 0.264 0.00005 0.001 0.00007 0.059 0.105 0.0003 1.77

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lbs/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs